

## **IHI AGRI-TECH CORPORATION**

EXECUTIVE ORDER U-R-026-0507-1 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2018	JH3XL1.66JTV	1.66	Diesel	3000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection, Turbocharger			Excavator			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
8 <u>&lt;</u> kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	15	20	50
		CERT			6.9	1.7	0.20	1	1	1

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order hereby supersedes Executive Order U-R-026-0507 dated May 4, 2018.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

\_ day of November 2018.

Annette Hebert, Chief

ZEmissions Compliance, Automotive Regulations and Science Division

## ATTACHMENT 10+1

## Engine Model Summary Template U-R-026-0507-1 R/C 10/01/2018

IHI Agri-Tech Corporation.

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque		9.Emission Control eDevice Per SAE J1930
JH3XL1.66JTV	IF24/2200	403J-17T	23.8@2200	27.9	10.1	100.0@1600	33.0	8.7	IFI, TC
JH3XL1.66JTV	IF24/2200	C1.7	23.8@2200	27.9	10.1	100.0@1600	33.0	8.7	IFI, TC
JH3XL1.66JTV	IF24/2800	403J-17T	24.7@2800	26.3	12.2	90.2@1800	31.5	9.4	IFI, TC
JH3XL1.66JTV	IF24/2800	C1.7	24.7@2800	26.3	12.2	90.2@1800	31.5	9.4	' IFI, TC
JH3XL1.66JTV	IF25/2200PAV	403J-17T	24.7@2200	29.4	10.7	93.6@1700	32.8 .	9.2	IFI, TC
JH3XL1.66JTV	IF25/2200PAV	C1.7	24.7@2200	29.4	10.7	93.6@1700	32.8	9.2	IFI, TC